

The SBSmh bordering the Fraser River is the most culturally developed subzone of the Cariboo Forest Region. The forest has been cleared for agricultural purposes from many valley bottom and low terrace sites.

SBSmw Subzone The SBSmw Subzone occurs in the northeastern portion of the Cariboo Forest Region, east of the Fraser River and north of the Quesnel River. It occurs on the middle and upper slopes of these river valleys as well as eastward across the northeastern Fraser Plateau as it rises toward the Quesnel Highland. Highest elevations of the SBSmw are about 950–1000 m, where the SBSmw borders the wetter, colder SBSwk subzone. Lowest elevations of the SBSmw are bordered by the SBSmh at about 750 m. A nearly equal area of the SBSmw occurs in the Cariboo and Prince George forest regions.

Climate of the SBSmw is moderately warm and moist. It is slightly wetter than that of the SBSdw.

The SBSmw vegetation is distinguished from that of other SBS subzones in the Region by frequent Douglas-fir and queen's cup but little or no pinegrass, oak fern, or beaked hazelnut on zonal sites. Five-leaved bramble is much less common than in wetter climates with a higher snowpack, such as the SBSwk and SBSmc.

Climax forests of the SBSmw are dominated by hybrid white spruce and subalpine fir. However, as in most other subzones on the Fraser Plateau, climax forests are uncommon due to past wildfires. Seral forests are dominated by a mixture of Douglas-fir, lodgepole pine, hybrid white spruce, and subalpine fir. Trembling aspen and white birch are also common. Douglas-fir and lodgepole pine forests are primarily single-storied. Tree regeneration is predominantly subalpine fir with secondary spruce and Douglas-fir. The shrub layer is moderately well developed and includes saskatoon, falsebox, thimbleberry, and Douglas maple. Several forbs (including queen's cup, bunchberry, twinflower, sarsaparilla, and showy aster) are present in the undergrowth, but, in contrast to the SBSdw, grasses are a minor component.

SBSmm Subzone The SBSmm Subzone occurs primarily in the Kamloops Forest Region and has only a very small area (86 km²) in the Cariboo Forest Region, near Bowers Lake. It is very similar to the SBSmc, described below, and differs from it by having more falsebox, black twinberry, palmate-leaved coltsfoot, and stiff clubmoss. See Lloyd *et al.* (1990).

SBSmm
SUB-BOREAL SPRUCE
MOIST MILD SUBZONE

The SBSmm occurs primarily in the Kamloops Forest Region. It includes only a very small area (87 km²) in the Cariboo Forest Region along the Kamloops Forest Region boundary south of Canim Lake. Elevations in the Cariboo Forest Region are predominantly 1250–1350 m.

Distinguishing Adjacent Units from the SBSmm (Cariboo Forest Region only)

The **SBSdw1** occurs below the SBSmm along most of its boundary in the Cariboo Forest Region. In the relatively dry climate along Canim Lake, a small area of the **IDFmw2** occurs below the SBSmm, while in the relatively moist climate northeast of Lorin Lake, a small area of the **ICHmk3** occurs below the SBSmm. The **ESSFdc2** occurs above the SBSmm throughout its distribution in the Cariboo Forest Region. The **SBSmc1** replaces the SBSmm at similar elevations west of Bowers Lake and in the Jim Creek watershed.

In the **SBSdw1**, zonal sites have:

- common pinegrass;
- little or no subalpine fir in forest canopy;
- no five-leaved bramble.

In the **IDFmw2**, zonal sites have:

- Douglas-fir climax forests;
- no subalpine fir;
- no bunchberry or black huckleberry.

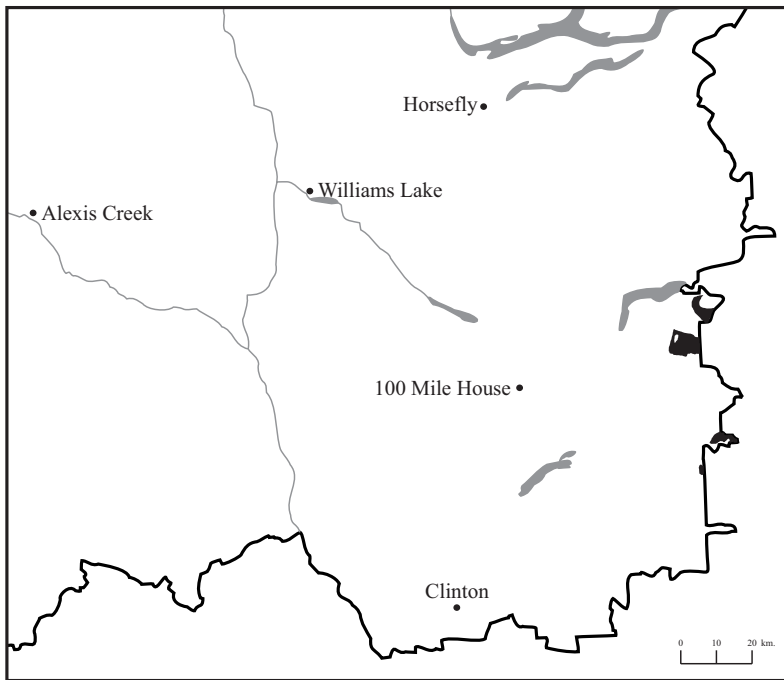
In the **ICHmk3**, zonal sites have:

- redcedar in canopy of climax forests;
- common Douglas-fir (seral).

In the **ESSFdc2**, zonal sites have:

- white-flowered rhododendron and Sitka valerian;
- little or no falsebox.

Distribution of SBSmm Subzone in the Cariboo Forest Region

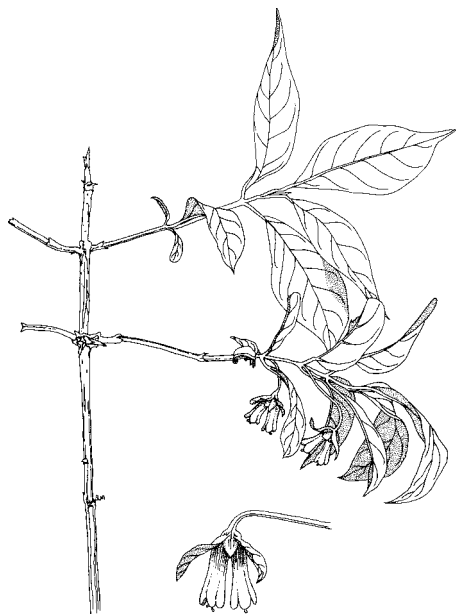


In the **SBSmc1**, zonal sites have:

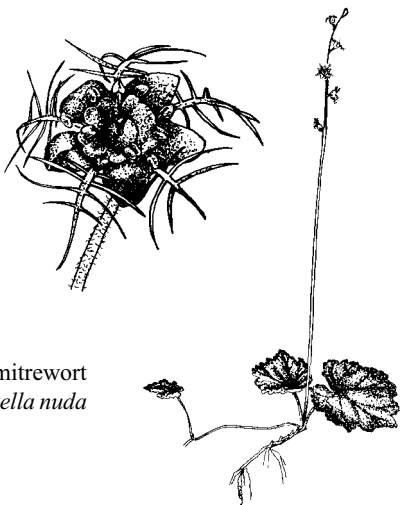
- many similarities to the SBSmm;
- less falsebox, black twinberry, palmate coltsfoot, and stiff clubmoss;
- less Douglas-fir (seral).

Site Units of the SBSmm

A site unit classification for the SBSmm has been developed for the Kamloops Forest Region by Lloyd *et al.* (1990). Although not field tested in this region, it is anticipated that this classification applies as well to the Cariboo Forest Region portion of the SBSmm. Consult Lloyd *et al.* (1990) for a description of site units.



Black twinberry
Lonicera involucrata



Common mitrewort
Mitella nuda

TABLE A1.1. Site units (shaded) in the Cariboo Forest Region and their precorrelation equivalents (unshaded).

Current (correlated) BEC unit code												
BEC Unit		Site unit										
		/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	/11
Equivalent precorrelation code												
BEC Unit		Ecosystem unit										
AT	AT	(site units not yet described)										
BGxh3	PPBGg	(see Iverson and Coupé 1996a)										
BGxw2	PPBGe	(see Iverson and Coupé 1996b)										
CWHds1	CWHc	see Guide for Vancouver Region (Green and Klinka 1994)										
ESSFdc2	ESSFe1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ESSFwc3	ESSFh2	/01	/02	/03								
ESSFwk1	ESSFh1	/01	/02	/03	/05	/04	/07 in part	/07 in part				
ESSFxc	ESSFd	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ESSF xv1	ESSFg, ESSF undif	npe	npe	npe	npe	npe	npe	npe	npe	npe		
ESSF xv2	ESSFg, ESSF undif	npe	npe	npe	npe	npe	npe	npe	npe			
ICHdk	ICHe3	/01	/02	/03	/04	/05	/06	/07	/08	/09		
ICHmk3	ICHe2	/01,/04	/02	/03	/05	/06	/07	/08				
ICHmw3	ICHm1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
ICHwk2	ICHh1	/01,/05	/02	/03	/04	/06 in part	/06 in part	/07	/08			
ICHwk4	ICHh2	/01,/06	/02	/03	/04	/05	/07	/08	/09			
IDFdk3	IDFb2	/01	/03	/02	/05	/04	/06	/07	/08	/09, /10		
IDFdk4	IDFb5	/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	
IDFdw	IDFundiff.	npe	npe	npe	npe	npe	npe	npe	npe			
IDFmw2	IDFj1	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
IDFxm	IDFa4	/01	/02	/03	/04	/05	/06	/07	/08	/09		
IDF xw	IDFa2	/01,/05,/07	/02	/03	/04	/06	/08	/09				

^aNo previous equivalent (npe)

TABLE A 1.1 (continued)

		Current (correlated) BEC unit code										
BEC unit		Site unit										
		/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	/11
		Equivalent Precorrelation Code										
BEC unit		Ecosystem Unit										
MHmm2	MHb	see Guide for Vancouver Forest Region (Green and Klinka 1994)										
MSdc2	MS undiff	npe	npe	npe	npe	npe	npe	npe	npe	npe	npe	npe
MSdv	MS undiff	npe	npe	npe	npe	npe	npe	npe	npe	npe	npe	npe
MSxk	MSc	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
MSxv	MSd	/01	/03	/02	/04	/05	/06	/07	/08			
SBPSdc	SBSa3	/01	/02	/03,/04	/05	/06	/07	/09	/08			
SBPSmc	SBSa2	see Guide for Prince Rupert Forest Region (Banner et al 1993)										
SBPSmk	SBSb	/01	/02	/03	/04	/05	/06	/07	/08,/09			
SBPSxc	SBSa1	/01	/02,/03	/05	/04	/06	/07					
SBSdw1	SBSk1	/01	/02	/03	/04	/05	/06	/07	/08	/09		
SBSdw2	SBSk2	/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	/11
SBSmc1	SBSm2	/01	/02	/03	/04	/06	/05	/07	/08			
SBSmc2	SBSel	/01	/02	/03	/04	/05	/06	/07	/08	/09	/10	/11
SBSmh	SBSl	/01	/02	/03	/04	/05	/06	/07	/08	/09		
SBSmm	SBSm	see Guide for Kamloops Forest Region (Lloyd et al. 1990)										
SBSmw	SBSc	/01	/02	/05	/03,/04	npe	/06	/07	/08	/09	/10	
SBSwk1	SBSj1	/01	/02	/03,/04	/05	/06	npe	/07	/08	/10	/09	/11

^aNo previous equivalent (npe)

TABLE 5.2.1 Distribution of Fen Site Associations by biogeoclimatic zone

		BG PP	BWBS SWB	ESSF	ICH	IDF	MS	SBPS SBS	CDF	CWH	MH
Wf01	Water sedge – Beaked sedge		xx	x	xx	xxx	xxx	xxx		x ⁱ	
Wf02	Scrub birch – Water sedge		xxx	x	xx	xx	xx	xx			
Wf03	Water sedge – Peat-moss			xx				x			
Wf04	Barclay's willow – Water sedge – Glow mosses		x	xxx			x	x			
Wf05	Slender sedge – Common hook-moss		x		xx	xx	xx	xx			
Wf06	Slender sedge – Buckbean		x		x	x		x			
Wf07	Scrub birch – Buckbean – Shore sedge		x		x	x		x			
Wf08	Shore sedge – Buckbean – Hook-moss		x	x		x	x	x			
Wf09	Few-flowered spike-rush – Hook-moss			x			x	x			
Wf10	Hudson Bay clubrush – Red hook-moss							x			
Wf11	Tufted clubrush – Star moss		x	x	x		x	x			
Wf12	Narrow-leaved cotton-grass – Marsh-marigold			xxx							
Wf13	Narrow-leaved cotton-grass – Shore sedge			xx			x				
Wf50	Narrow-leaved cotton-grass – Peat-moss									x	xxx
Wf51	Sitka sedge – Peat-moss				x				xx	xx	
Wf52	Sweet gale – Sitka sedge								xx	xx ^s	
Wf53	Slender sedge – White beak-rush								x	xx ^s	

x = incidental; < 5% of wetlands

i = inland areas only

xx = minor; 5–25% of wetlands

s = southern subzones only

xxx = major; >25% of wetlands

TABLE 5.2.2 Fen Species Importance Table

Species		WF01	WF02	WF03	WF04	WF05	WF06	WF07	WF08
Shrubs	<i>Betula nana</i>								
	<i>Salix barclayi</i>								
	<i>Salix pedicellaris</i>								
	<i>Spiraea douglasii</i>								
	<i>Myrica gale</i>								
Herbs and Dwarf Shrubs	<i>Carex utriculata</i>								
	<i>Carex aquatilis</i>								
Shrubs	<i>Comarum palustre</i>								
	<i>Calamagrostis canadensis</i>								
Shrubs	<i>Carex lasiocarpa</i>								
	<i>Menyanthes trifoliata</i>								
Shrubs	<i>Carex limosa</i>								
	<i>Carex chordorrhiza</i>								
Shrubs	<i>Eleocharis quinqueflora</i>								
	<i>Trichophorum alpinum</i>								
Shrubs	<i>Trichophorum cespitosum</i>								
	<i>Eriophorum angustifolium</i>								
Shrubs	<i>Caltha leptosepala</i>								
	<i>Carex anthoxanthea</i>								
Shrubs	<i>Equisetum fluviatile</i>								
	<i>Carex magellanica</i>								
Shrubs	<i>Carex sitchensis</i>								
	<i>Rhynchospora alba</i>								
Shrubs	<i>Carex livida</i>								
	<i>Eriophorum chamissonis</i>								
Shrubs	<i>Vahlodea atropurpurea</i>								
	<i>Drosera anglica</i>								
Shrubs	<i>Hypericum anagalloides</i>								
	<i>Triantha glutinosa</i>								
Shrubs	<i>Schoenoplectus tabernaemontani</i>								
	<i>Fauria crista-galli</i>								
Shrubs	<i>Senecio triangularis</i>								
	<i>Andromeda polifolia</i>								
Shrubs	<i>Kalmia microphylla</i>								
	<i>Oxycoccus oxycoccus</i>								
Shrubs	<i>Triglochin maritima</i>								
	<i>Drosera rotundifolia</i>								
Shrubs	<i>Leptarrhena pyrolifolia</i>								
	<i>Platanthera dilatata</i>								
Shrubs	<i>Sanguisorba canadensis</i>								
	<i>Utricularia intermedia</i>								
Shrubs	<i>Viola palustris</i>								
	<i>Sphagnum Group I</i>								
Lichens and Mosses	<i>Aulaconnium palustre</i>								
	<i>Drepanocladus spp.</i>								
Lichens and Mosses	<i>Sphagnum Group II</i>								
	<i>Tomentypnum nitens</i>								
Lichens and Mosses	<i>Philonotis fontana</i>								
	<i>Calliergon stramineum</i>								
Lichens and Mosses	<i>Scorpidium spp.</i>								
	<i>Campyllum stellatum</i>								
Lichens and Mosses	<i>Warnstorfia spp.</i>								
	<i>Meesia triquetra</i>								

Betula nana – *Carex aquatilis*



General Description

The Scrub birch – Water sedge Fen Site Association is one of the most common peatland Site Associations throughout the Interior and is absent only from PP/BG and wet ESSF subzones. It is frequently a major component of large peatlands where there is some surfactable fluctuation and the surface becomes aerated by mid-season. These sites are often hummocked, with shrubs rooting on elevated microsites.

Betula nana and *Carex aquatilis* are the characteristic species but *Salix pedicellaris* and *Carex utriculata* dominate on wetter sites. The moss layer is variable and can be diverse, absent, or dominated by *Tomentypnum nitens*, *Sphagnum*, or *Drepanocladus*. Some drier sites will have scattered, stunted trees (spruce or black spruce most commonly).

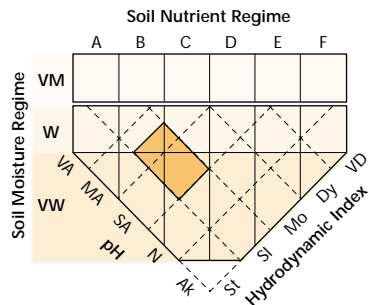


Common soil types are terric and typic Mesisols and Fibrisols. Peat depths are frequently between 1 and 2 m but deep sedge-derived peat to 4 m occurs; this Site Association can occasionally occur on thin organic veneers.

Characteristic Vegetation

- Tree layer** (0 - 0 - 10)
- Shrub layer** (10 - 35 - 100)
Betula nana, *Salix pedicellaris*
- Herb layer** (5 - 60 - 100)
Carex aquatilis, *C. utriculata*,
Comarum palustre
- Moss layer** (0 - 70 - 100)
Aulacomnium palustre, *Drepanocladus aduncus*, *Sphagnum* Group I,
Tomentypnum nitens

Wetland Edatopic Grid



Comments

The Wf02 Site Association often occurs around the periphery of the wetter Wf01 or adjacent to the drier Wb05. These three Site Associations may represent a sequence of long-term peatland succession. Many sites have a moss layer with rich and poor site indicators, suggesting that they are in transition from fen to bog conditions.

The Wf02 is one of the most common Interior peatland community types at low to subalpine elevations. It is probably only absent from the AT, BG, and PP zones. In coastal areas, similar sites are occupied by the Wf52.